

## Jump Takeoff Position Indicator System

### ABSTRACT

A jump takeoff position indicator system that discloses the point of takeoff of a long jump or triple jump in athletic competition or practice when an athlete's foot comes in contact with a takeoff board when beginning a jump. A plurality of light beams are emitted parallel to the edge of the takeoff board. The light beams are closely spaced, parallel to each other, and transverse to the direction of the jump. The foot position is known by the location of the beams broken at takeoff. A light beam detector detects interruption of the light beams by an athlete's foot and displays the takeoff position on a plurality of visible LEDs. The system provides a memory for storing the takeoff position and recall switch for retrieving and displaying the information after completion of the jump. The system is immune from ambient light disturbances and can easily be moved between multiple takeoff board locations.

Microcontrollers are employed in a modular fashion for system control. Furthermore, the system is battery operated with low battery detection provided.